

## **Butler County**

## Estimated Economic Impact of Agriculture, Food, and Food Processing Sectors 6/22/2017

Using the most recent IMPLAN data available (2015) adjusted for 2017, 21 agriculture, food, and food processing sectors were analyzed to determine their overall contribution to the Butler County economy.<sup>1</sup>

These 21 sectors have a total direct output of approximately \$365.0 million and support 2,210.2 jobs in Butler County. Running the model for all 21 sectors simultaneously produces the following results:

Agriculture, Food, and Food Processing Sector Contribution to Overall Butler County Economy								
Impact Type <sup>2</sup>	Employment	% Employment	Total Value Added <sup>3</sup>	Total Value Added % of Gross Regional	Output <sup>5</sup>	Output % of Gross Regional Product		
				Product <sup>4</sup>		Troduct		
Direct Effect	2,210.2	6.57%	\$104,974,029	4.53%	\$365,009,551	15.75%		
Indirect Effect	784.7	2.33%	\$25,260,334	1.09%	\$61,815,444	2.67%		
Induced Effect	356.4	1.06%	\$21,618,404	0.93%	\$40,925,080	1.77%		
Total Effect	3,351.3	9.96%	\$151,852,766	6.55%	\$467,750,075	20.18%		

As shown in the above table, agriculture, food, and food processing sectors support **3,351.3 jobs**, or **9.96%** of the entire workforce in the county. These sectors provide a total economic contribution of approximately **\$467.8** million, roughly **20.18%** of the economy.

Another metric used to calculate the importance of sectors in an economy is their value added as a percentage of GRP. Total value added by the 17 agriculture, food, and food processing sectors is approximately \$151.9 million, or 6.55% of the GRP. This indicates that personal income, business income, and taxes generated by these sectors account for 6.55% of the total economy.

The following tables document the overall summary numbers of the model, top industries affected by employment and output, and a listing of all industries that were analyzed.

<sup>1</sup> Article on building a contribution analysis in IMPLAN that avoids double counting: <a href="http://www.implan.com/index.php?option=com\_content&view=article&id=660%3A660&catid=253%3AKB33&Itemid=70">http://www.implan.com/index.php?option=com\_content&view=article&id=660%3A660&catid=253%3AKB33&Itemid=70</a>

<sup>2</sup> Direct, indirect, and induced effects sum together to estimate the total economic contribution in the state. **Direct effects** capture the contribution from agricultural and food products. **Indirect effects** capture the economic benefit from farms and agricultural businesses purchasing inputs from supporting industries within the state. **Induced effects** capture the benefits created when employees of farms, agricultural businesses, and the supporting industries spend their wages on goods and services within the state.

<sup>3</sup> Value added = labor income + indirect business taxes + other property type income.

<sup>4</sup> GRP = final demand of households + governments expenditures + capital + exports - imports - institutional sales.

<sup>5</sup> Output = intermediate inputs + value added.

In the top ten agriculture, food, and food processing sectors by employment, the beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming sector is the top employer with **1,073.1 employees**. This table also shows the amount of jobs that are created by the agriculture industry in Butler County.

Top Ten Agriculture, Food, and Food Processing Sectors by Employment				
Sector	Total Employment	Total Output		
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	1,073.1	\$177,714,272		
Landscape and horticultural services	502.5	\$24,361,714		
Support activities for agriculture and forestry	468.0	\$9,399,905		
Veterinary services	160.4	\$14,632,025		
All other crop farming	119.5	\$12,548,571		
Real estate	97.6	\$8,287,991		
Grain farming	95.6	\$48,786,626		
Animal production, except cattle and poultry and eggs	63.8	\$11,645,557		
Commercial logging	56.3	\$2,104,112		
Wholesale trade	43.7	\$9,653,750		

The beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming sector directly contributes approximately \$177.7 million to the Butler County economy. The table below also shows the amount of revenue that is generated in other industries by having a strong agriculture industry.

Top Ten Agriculture, Food, and Food Processing Sectors by Output				
Sector	Total Employment	Total Output		
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	1,073.1	\$177,714,272		
Grain farming	95.6	\$48,786,626		
Landscape and horticultural services	502.5	\$24,361,714		
Dairy cattle and milk production	35.5	\$19,288,396		
Oilseed farming	11.1	\$17,194,052		
Fertilizer mixing	22.5	\$15,181,530		
Veterinary services	160.4	\$14,632,025		
All other crop farming	119.5	\$12,548,571		
Animal production, except cattle and poultry and eggs	63.8	\$11,645,557		
Petroleum refineries	1.9	\$10,921,838		

Below is a summary of all agriculture data with employment levels and output level. These values can tell how many jobs are represented by each agriculture, food, and food processing sector and the output they contributed to the Butler County economy.

All Agriculture, Food, and Food Processing Sec	tors	
Sector	Total Employment	Total Output
Oilseed farming	11.1	\$17,194,051.74
Grain farming	95.6	\$48,786,624.91
Vegetable and melon farming	0.2	\$68,725.06
Fruit farming	2.4	\$320,084.18
Tree nut farming	0.02	\$8,889.08
Greenhouse, nursery, and floriculture production	4.6	\$968,500.91
Cotton farming	0.2	\$71,259.84
All other crop farming	119.5	\$12,548,570.63
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	1,073.1	\$177,714,263.92
Dairy cattle and milk production	35.5	\$19,288,394.93
Poultry and egg production	1.5	\$1,704,724.31
Animal production, except cattle and poultry and eggs	63.8	\$11,645,556.45
Commercial logging	56.3	\$2,104,112.39
Animal, except poultry, slaughtering	10.6	\$8,248,314.86
Bread and bakery product, except frozen, manufacturing	34.1	\$3,949,877.26
Frozen cakes and other pastries manufacturing	2.3	\$349,586.67
Breweries	4.4	\$3,534,307.72
Wineries	9.9	\$2,499,179.84
Fertilizer mixing	22.2	\$15,010,776.52
Veterinary services	160.4	\$14,632,023.81
Landscape and horticultural services	502.5	\$24,361,713.41

All 105 counties in Kansas have an IMPLAN model and an agriculture, food, and food processing contribution summary. These values do not factor in the retail environment of food sales. Food retail is important, but in order to provide the most accurate picture of what production agricultural and processing contributes to Butler County, the retail sector was omitted.